Mr. A.G. Kawamura
Secretary
California Department of Food and Agriculture
c/o Laurene Chiesa
6790 Florin Perkins Road, Suite 100
Sacramento, California 95828

Dear Secretary Kawamura: **DATE:**

With this letter, _____ **(INSERT COMPANY NAME)** is making application for a variance under Chapter 14, Section 13405 of the California Business and Professions Code. The requested variance would apply to _____ **(INSERT EITHER ONE OR BOTH OF THE FOLLOWING: finished blends of 20% biodiesel/80% conventional diesel fuel (B20); and for 100% biodiesel (B100) employed as a neat motor fuel)**.

Introduction/Background

Biodiesel is the name of a clean burning alternative fuel, produced from domestic, renewable resources such as virgin oils (i.e. soybean oil), recycled oils (i.e. second-use cooking oil), and animal fats. Biodiesel contains no petroleum, but it can be blended at any level with petroleum diesel to create a biodiesel blend. It can be used in compression-ignition (diesel) engines with little or no modifications. Biodiesel is biodegradable, nontoxic, and essentially free of sulfur and aromatics.

Biodiesel has been recognized by the U.S. Department of Energy's Clean Cities Program as the fastest growing alternative fuel in the U.S. for the past two years. Over 400 fleets are employing biodiesel. Interest in biodiesel use is increasing dramatically in California.

The American Society for Testing and Materials (ASTM) has adopted a fuel specification for biodiesel used as a blend stock (ASTM D 6751). ASTM is presently in the process of developing a specification for finished blends of B20 and a specification for neat biodiesel used as a motor fuel. Data collected as a result of this application will be used to assist ASTM with efforts in these areas.

Potential Benefits to Californians

(1) Public Health Benefits:
Biodiesel's use as either a B20 blend or as a neat motor fuel will have significant public health benefits for Californians through the reduction of criteria pollutants, toxics, and greenhouse gases. Biodiesel is very possibly the most researched and tested alternative fuel in the marketplace today. Biodiesel was the first alternative fuel to successfully complete Tier 1 and Tier 2 Health Effects testing requirements of the Clean Air Act Amendments of 1990 to quantify emission characteristics and health effects. That study found that B20 reduced total hydrocarbons by up to 30%, carbon monoxide up to 20%, and total particulate matter up to 15%. Typically, emissions of nitrogen oxides are either slightly reduced or slightly increased depending on the duty cycle of the engine and testing methods used. Research also documents the fact that the ozone

forming potential of the hydrocarbon emissions of pure biodiesel is nearly 50% less than that of petroleum fuel. Pure biodiesel does not contain sulfur and therefore reduces sulfur dioxide exhaust from diesel engines to virtually zero.

Biodiesel emissions are safer for people to breathe. Research conducted in the U.S. shows biodiesel emissions have decreased levels of all target polycyclic aromatic hydrocarbons (PAH) and nitrited PAH compounds, as compared to petroleum diesel exhaust. PAH and
nPAH compounds have been identified as potential cancer causing compounds. Targeted PAH compounds were reduced by 75 to 85 percent, with the exception of benzo(a)anthracene, which was reduced by roughly 50 percent. Target nPAH compounds were also reduced dramatically with biodiesel fuel, with 2-nitrofluorene and 1-nitropyrene reduced by 90 percent, and the rest of the nPAH compounds reduced to only trace levels. All of these reductions are due to the fact the biodiesel fuel contains no aromatic compounds. These emissions are also reduced using B20.

(2) Environmental Benefits:
Biodiesel can also help reduce global warming through lifecycle reductions of greenhouse gases. As a renewable fuel derived from organic materials, biodiesel used as a B20 blend or as a neat fuel can reduce the net amount of carbon dioxide in the biosphere. A study by the U.S. Department of Energy has found that biodiesel production and use, in comparison to petroleum diesel, produces 78.5% less CO2 emissions. Carbon dioxide is “taken up” by the annual production of crops such as soybeans and then released when vegetable oil based biodiesel is combusted. This makes biodiesel the best technology currently available for heavy-duty diesel applications to reduce atmospheric carbon. B20 blends also achieve considerable lifecycle reductions of greenhouse gases, but are to a lesser amount than that from use of the neat fuel.

(3) Energy Security:
California’s demand for energy is escalating at a rapid pace. At present, the state is a net importer of crude and finished petroleum products. The use of biodiesel in a blended form or as a neat motor fuel can help California meet its growing energy demand.

Anticipated Fuel Users

It is anticipated that users of _____ **(INSERT FUEL(S) i.e. B20, B100 as a motor fuel)** would constitute a broad range of applications including: on-road vehicular use; off-road mobile equipment; marine use; and stationary sources used to power equipment or generate electricity. More specifically: _____ **(PROVIDE SOME MORE SPECIFIC EXAMPLES OF WHO MAY BE CUSTOMERS OR POTENTIAL CUSTOMERS i.e. branches of the military; federal government agencies including the Postal Service; cities; counties; state agencies; transit agencies; private entities contracting services with a city, county, or state; special districts; private sector industries including solid waste collection fleets; electrical generation entities; agricultural industry; individuals via the formation of fuel coops or participation in controlled card-lock facilities)**.

Trial Conditions and Monitoring

(BELOW ARE THE DETAILS WHICH THE DIVISION IS REQUESTING BE INCLUDED AS PART OF THE APPLICATION/REPORTING. APPLICANT SHOULD PROVIDE INFORMATION CONSISTENT WITH THE ITEMS BELOW.)

1. **Fleet Makeup: provide a general description of the fleet makeup. For example: size, vehicle make and model years, engine types and model years, etc.)**
2. **Fuel Consumption: provide data relative to the gallons of fuel consumed.**
3. **Process for monitoring potential engine problems: provide information on how the applicant intends to work with a fleet to assess compatibility of the fuel with the engine and identify problems.**
4. **Consumer Notification: provide the Division with details on how the applicant intends to educate the user of any potential issues that may arise from the use of the fuel(s).**
5. **Damage Liability: provide the Division with information on how the applicant intends to address with the consumer remediation of damages caused by the sale, delivery, storage, handling, and use of the fuel(s).**
6. **Distribution Control: provide the Division information on how access to the fuel will be controlled to ensure it is not being used by the general public outside of the proscribed fleet(s).**
7. **Reporting: the Division indicates they prefer to have information related to the trial(s) reported to them on a quarterly basis.**

We certainly appreciate your consideration of our request. Please do not hesitate to contact us should you have questions or would like to discuss this further.

Sincerely,

CALIFORNIA BUSINESS AND PROFESSIONS CODE
DIVISION 5, CHAPTER 14

PETROLEUM

§ 13401. DEFINITIONS OF TERMS

(q) "Developmental engine fuel" means any experimental automotive spark-ignition engine fuel or compression-ignition fuel which does not meet current standards established by this chapter but has characteristics which may lead to an improved fuel standard or the development of an alternative fuel standard.

§ 13405. DEVELOPMENTAL ENGINE FUELS

The Department of Food and Agriculture may grant a variance from the specifications of this chapter for developmental engine fuels if all of the following conditions apply:

(a) Variances may only be granted to provide for the development of information under controlled test conditions to assist in the creation of chemical and performance standards for engine fuels.

(b) Developmental engine fuel shall only be distributed or sold to fleet-type centrally fueled vehicle and equipment users.

(c) The applicant shall warn all parties in writing of any potential risk associated with the use of the developmental engine fuel.

(d) The applicant shall report information when and as the department may prescribe in order for the department to monitor the progress of the developmental engine fuel technology evaluation.

The applicant for a variance shall comply with all other requirements, terms, and conditions that are contained in regulations adopted by the department to further the purposes and administration of this section.

In granting a variance, the department expresses no opinion as to whether an applicant's developmental engine fuel will perform as represented by the applicant. Nor does the department express any opinion to the extent, if at all, that the developmental engine fuel may be safely and effectively used as a substitute for other spark-ignition or compression-ignition engine fuels without incident. Damages caused by the sale, delivery, storage, handling, and usage of the developmental engine fuel shall be addressed in accordance with contractual provisions negotiated and agreed upon by the applicant and the user.

The department may withdraw a variance if the applicant does not adhere to the conditions required to obtain the variance or if the department recognizes a high probability of equipment harm with the continued use of the developmental engine fuel or to protect public safety.

Added Stats 2001 ch 596 § 2.

CALIFORNIA CODE OF REGULATIONS
DIVISION 9, CHAPTER 6

4144. Specifications – Developmental Fuels.

(a) Sales of developmental engine fuels authorized by the Department are not subject to restrictions imposed upon the sale of non-conforming fuel products as set forth in Business and Professions Code Sections 13441, 13442 and 13451, but the Department's authorization does not create a variance or waiver from any other applicable California statute or regulation.

(b) An applicant for authorization to sell developmental engine fuel must submit the following information to the Department:

(1) a statement of the potential benefit of the fuel to the people of California; and

(2) a description of test conditions associated with the use of the fuel, including control and monitoring practices, and the method of distribution and storage.

(c) Any authorization provided by the Department is subject to the following terms and conditions:

(1) The authorization is limited to a period of two years, with an automatic renewal for an additional two years in the absence of action to revoke the authorization by the Department; and,

(2) Damages caused by sale, delivery, storage, handling and usage of the fuel shall be addressed in accordance with contractual provisions negotiated and agreed upon by the authorization holder and the user; and,

(3) The authorization holder shall report information to the Department as required to monitor the use of the fuel during the process of developing a generally recognized chemical and performance standard through a recognized consensus organization or standards writing organization, such as the American Society for Testing and Materials ("ASTM") or the Society of Automotive Engineers ("SAE"). The Department shall specify the reporting requirements on a case by case basis at the time the authorization is granted.

(d) The Department may take action to revoke the authorization at any time. Revocation of the authorization is effective and final upon receipt of written notification by the authorization holder. The Department may take action to revoke the authorization if the Department finds:

(1) the authorization holder has violated any of the terms and conditions of the authorization; or,

(2) the authorization holder has abandoned efforts to develop a generally recognized chemical and performance standard for the fuel through a recognized consensus organization or standards writing organization.

(3) there is a high probability of equipment harm with the continued use of the developmental fuel or to protect the public safety.

(e) The authorization shall cease to exist upon publication of a generally recognized chemical and performance standard for the fuel.

NOTE: Authority cited: Sections 12027 and 13405, Business and Professions Code. Reference: Sections 13401, 13440-13443, and 13450-13451, Business and Professions Code.

4147. Specifications – Biodiesel Blending Stock and Biodiesel Fuel Blends. –

Biodiesel Blending Stock and Biodiesel Fuel Blends shall meet the following specifications:

(1) The diesel fuel used for blending shall meet the specifi-cations set forth by ASTM International in the latest version of "Standard Specification for Diesel Fuel Oils D 975", contained in the ASTM publication entitled: Annual Book of ASTM Standards, Sectiofn 5, Volume 05:01.

(2) Biodiesel blending stock shall meet the specifications set forth by ASTM International in the latest version of "Standard Specification for Biodiesel Fuel (B100) Blend Stock for Distillate Fuels D 6751", contained in the ASTM publication entitled: Annual Book of ASTM Standards, Section 5, Volume 05:04.

(3) Any finished biodiesel fuel blend shall meet the specifi-cations set forth by ASTM International in the latest version of "Standard Specification for Diesel Fuel Oils D 975", contained in the ASTM publication entitled: Annual Book of ASTM Standards, Section 5, Volume 05:01.

NOTE: Authority cited: Sections 12027 and 13450, Business and Professions Code. Reference: Sections 13401(i), 13450 and 13441, Business and Professions Code.

4148. Labeling and Price Advertising Sign Requirements for Biodiesel.

(a) Biodiesel blends shall have the words "Biodiesel fuel (BXX)", where XX represents the volume percent biodiesel in the fuel, used to describe the name of the product on all dispensers, advertising signs, and storage tank labels as required in Section 13480 and 13532 of the Business and Professions Code.

(b) Every biodiesel blend dispenser dispensing blends greater than 5 volume percent (B5) of biodiesel shall display on each customer side, as required by Section 13484 of the Business and Professions Code, a sign clearly visible which reads as follows:

"THIS FUEL CONTAINS BIODIESEL. CHECK THE OWNER'S MANUAL OR WITH YOUR ENGINE MANFUACTURER BEFORE USING."

NOTE: Authority cited: Sections 12027 and 13450, Business and Professions Code. Reference: Sections 13480, 13484 and 13582, Business and Professions Code.

Quarterly Biodiesel Variance Report

Vendor:

Reporting Quarter: Year:
January-March: _____ April-June_____July-September_____October-December:_____

Biodiesel sales:
B100-_____Gallons, B99- _____Gallons, B20-_____ Gallons,
B5-_____Gallons, B -_____ Gallons (other), B -_____ Gallons (other)

Reportable issues or incidents regarding Biodiesel usage:
(any mechanical issues, performance issues, fuel quality issues)

Consumer training or presentations during the quarter:

Significant changes in customer base:
(number and type of new customers or discontinued customers)

General information:

Send to: Laurene Chiesa
Supervising Special Investigator
State of California
Department of Food and Agriculture
Division of Measurement Standards
Weighmaster Enforcement/Petroleum Products Branch
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